

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L10	2	US "20030141509" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/09/28 19:04
L11	2	US "20030047737" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/09/28 19:06
L12	9	US "6462358"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/09/28 19:08
L13	0	US "2003229599" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/09/28 19:09
L14	2	JP "2003229599" A	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/09/28 19:10
L15	3	US "20050121693" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/09/28 19:11

S3	1840	(257/213,256,257).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:03
S4	2708	(257/213,256,257;438/167,186;341/136;331/116,117).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:05
S8	1	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and inver\$3 and P-I-N and InGaN	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:08
S9	170	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and InGaN	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:08
S10	106	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and InGaN and (aluminum or "Al") and (gold or "Au") and sapphire near10 substrate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:10
S11	0	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and InGaN and (aluminum or "Al") and (gold or "Au") and (titanium or "Ti") and ((ITO) or (Ni near2 ITO)) and sapphire near10 substrate and (nanometer or "nm") and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:14

S14	4	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and InGaN and (aluminum or "Al") and (gold or "Au") and sapphire near10 substrate and (nanometer or "nm") and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:17
S19	6	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and InGaN and (aluminum or "Al") and sapphire and substrate and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:19
S20	10	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:20
S21	351	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 19:34
S22	166	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and nanometer and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:20
S25	113	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and nanometer and micrometer and thickness and (gold or "Au")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:47

S26	17	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and nanometer and micrometer and thickness and (gold or "Au") and "ITO"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:23
S27	19	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and nanometer and micrometer and thickness and "ITO"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:23
S28	6	US "6258617" B1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 16:48
S29	4	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and micrometer and thickness transparent	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 19:36
S30	20	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and micrometer and thickness and transparent near10 ohm\$2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/26 19:38
S31	19	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") and sapphire and substrate and micrometer and thickness and transparent near10 ohm\$2 near5 contact	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/29 10:39

S32	749	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") near5 (titanium or "Ti") near5 (gold or "Au") and sapphire and substrate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/29 10:41
S33	290	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") near5 (titanium or "Ti") near5 (gold or "Au") near5 electrode and sapphire and substrate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/29 10:42
S34	122	(photodetector or photodiode or LED) and GaN near10 layer and (aluminum or "Al") near2 (titanium or "Ti") near2 (gold or "Au") near2 electrode and sapphire and substrate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/29 10:45
S35	2	(photodetector or photodiode or LED) and GaN near10 layer and Al/Ti/Au and (aluminum or "Al") near2 (titanium or "Ti") near2 (gold or "Au") near2 electrode and sapphire and substrate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/29 10:46
S36	4	(photodetector or photodiode or LED) and (intrinsic or undoped) layer and InGaN and (aluminum or "Al") and (gold or "Au") and sapphire and substrate and micrometer and thickness	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/30 08:56
S37	2	US "20050133809" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:24
S39	2	US "20030062529" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:25

S40	2	US "20060273327" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:26
S41	2	US "20070096116" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:27
S42	2	US "20050224816" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:27
S43	2	US "20050285128" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:28
S45	12	GaN substrate near10 polish\$3 and substrate near10 etch\$3 and substrate near10 planariz\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:30
S48	140	GaN substrate and InGaN and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:38
S49	2	GaN substrate and InAlGaIn near10 (n\$1type) and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:40
S50	25	GaN substrate and InAlGaIn and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:40

S53	2	GaN substrate and InAlGaN and light\$1emitting and aluminum content	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:46
S59	2	InAlGaN and light\$1emitting and aluminum near10 percentage	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:49
S64	2	GaN substrate and InAlGaN near5 thickness and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 02:52
S65	12	GaN substrate and InAlGaN near5 semiconduct\$3 and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 07:05
S66	1	InAlGaN substrate and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:05
S67	25	InAlGaN near5 semiconduct\$3 and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:07
S68	7	AllnGaIn near5 semiconduct\$3 and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:11
S69	2	AllnGaIn substrate and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:17

S70	385	257/257.ccls	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TOB	ADJ	ON	2008/06/09 08:22
S73	2	(AlInGaN or InAlGaN) contact and light\$1emitting	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:25
S74	73	(AlInGaN or InAlGaN) near5 n\$1type and light\$1emitting	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:28
S75	1	US 2004/0041156 A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:45
S76	3	US "20040041156" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:46
S77	2	US "20020088985" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:48
S78	2	US "20020079506" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:50
S79	1412	(Al near5 In near5 Ga near5 N)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 08:58



S81	25	(Al near3 In near3 Ga near3 N)and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 09:00
S82	25	(Al near3 In near3 Ga near3 N) and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 09:00
S83	42	(Al near5 In near5 Ga near5 N) and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 09:03
S85	17	GaN substrate and (Al near5 In near5 Ga near5 N) and light\$1emitting and quantum well near5 thickness	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/09 09:04
S86	6	US "6462358" B1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 16:58
S87	2	US "20070296077" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 17:13
S88	2800	(257/103).cds.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:09

S89	11	(257/103).cds. and twin	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:09
S90	3	(257/103).cds. and twinning	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:15
S91	19	(257/94,96,97).cds. and twin	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:16
S92	1	US 2004/0169184 A1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:18
S93	2	US "20040169184" A1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:18
S94	2	US "20030160253" A1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:20

S95	7	(257/E33.003,E33.023,E33.026,E33.031,E33.031),ccls. and twin	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/06/19 19:24
S96	2	US "20070215886" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:29
S97	580	(Ryouichi near2 Takeuchi) or (Wataru near2 Nabekura) or (Takashi near2 Udagawa)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:31
S98	17	((Ryouichi near2 Takeuchi) or (Wataru near2 Nabekura) or (Takashi near2 Udagawa)) and twin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:31
S99	33359	Denko near2 Showa	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:47
S100	835	Denko near2 Showa and twin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:47
S101	23	(Denko near2 Showa) and twin and phosphide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:48
S102	204	(Denko near2 Showa) and boron near5 phosphide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:49

S103	13	(Denko near2 Showa) and boron near5 phosphide and arsenic and boron	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:49
S104	363	(III\$1V or III\$1P or compound\$1semiconductor or (compound semiconductor)) same (twin or twinning)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:57
S105	36	S104 and boron	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 19:58
S106	169	(light\$1emitter or light\$1emitting or (light (emitting or emitter)) or LED) same (boron\$1phosphide or (boron phosphide))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 20:00
S107	2	US "20030047737" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/06/19 20:10
S108	2	US "20070215886" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 18:52
S109	33	257/E33.027	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 18:54
S110	299	boron near5 conduct\$3 near3 substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:00

S111	17	light\$1emitting and boron near\$5 conduct\$3 near\$3 substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:00
S112	584	((Takeuchi near\$2 Ryouichi) or (Nabekura near\$2 Wataru) or (Udagawa near\$2 Takashi))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:05
S113	152	("257"/\$.ccls. or "438"/\$.ccls.) and ((Takeuchi near\$2 Ryouichi) or (Nabekura near\$2 Wataru) or (Udagawa near\$2 Takashi))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:06
S114	2	("257"/\$.ccls. or "438"/\$.ccls.) and ((Takeuchi near\$2 Ryouichi) or (Nabekura near\$2 Wataru) or (Udagawa near\$2 Takashi)) and boron and permeable substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:08
S115	3	("257"/\$.ccls. or "438"/\$.ccls.) and ((Takeuchi near\$2 Ryouichi) or (Nabekura near\$2 Wataru) or (Udagawa near\$2 Takashi)) and boron and transparent substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:10
S116	13	US "5008718"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:15
S117	16	US "5403916"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:18
S118	1	US "6607931" B2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:23

S119	2	US "20030141509" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 19:25
S120	2	US "7,348,628" B2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2008/12/06 21:11
S121	113	257/E33.023.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 11:19
S122	10	257/E33.023.ccls. and boron	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 11:36
S123	37	((Ryouichi near2 Takeuchi) or (Wataru near2 Nabekura) or (Takashi near2 Udagawa)) and ALGaNIP	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 11:39
S124	6	((Ryouichi near2 Takeuchi) or (Wataru near2 Nabekura) or (Takashi near2 Udagawa)) and ALGaNIP and boron	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 11:39
S125	0	("257"/\$ or "438"/\$).ccls. ALGaNIP and boron	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 11:51
S126	25	("257"/\$ or "438"/\$).ccls. and light emitting and ALGaNIP and boron and substrate near10 (transparent or transmissive or permeable)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 11:54

S127	7	("257"/\$ or "438"/\$).ccls. and light emitting and ALGaNP near10 boron and substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 12:38
S128	107	("257"/\$ or "438"/\$).ccls. and light emitting and "III-V" near6 semiconductor near10 boron and substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 12:41
S129	55	("257"/\$ or "438"/\$).ccls. and light emitting and "III-V" near5 semiconductor near5 boron and substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 12:42
S130	2	US "20080268562" A1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 16:23
S131	2	("257"/\$ or "438"/\$).ccls. and light emitting and conduct\$3 near10 growth rate near4 "nm/min"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 17:07
S132	66	("257"/\$ or "438"/\$).ccls. and light emitting and growth rate near4 "nm/min"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2009/06/20 17:08

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